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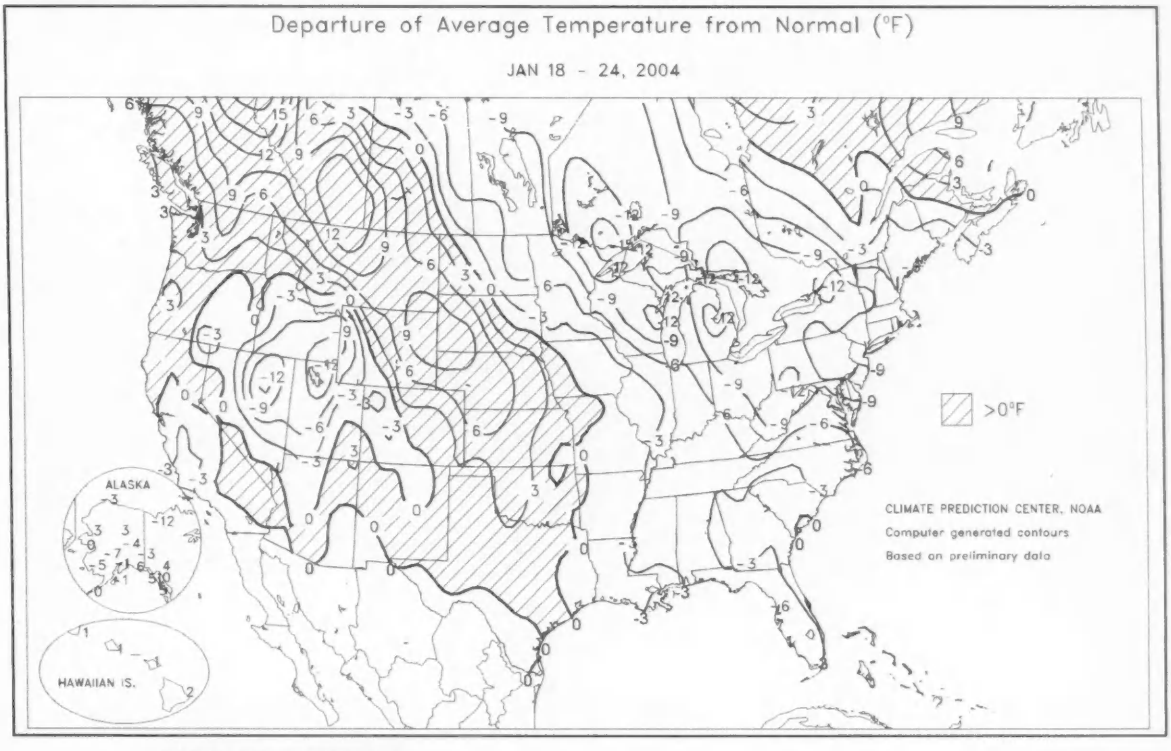
WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service
and World Agricultural Outlook Board



HIGHLIGHTS

January 18 - 24, 2004

Highlights provided by USDA/WAOB

For the third consecutive week, bitterly cold air remained entrenched across the **lower Great Lakes region** and the **Northeast**, where weekly temperatures averaged as much as 12°F below normal. Cold air was still in place at week's end when moisture began to overrun the **Ohio Valley** and the **East**, producing widespread snow, sleet, and freezing rain. Cold weather expanded its grip to encompass much of the **Midwest**, although the harshest conditions—including snow squalls downwind of the **Great Lakes**—were confined to the **northern and eastern Corn Belt**. Although below-normal temperatures prevailed across the **South**, freezes were not a concern in winter

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Weather Data for Mississippi and the Missouri Bootheel

Weather Data for the Week Ending January 24, 2004

Data provided by the Mississippi State Delta Research and Extension Center (DREC), the Southern Regional Climate Center (SRCC), and the University of Missouri.

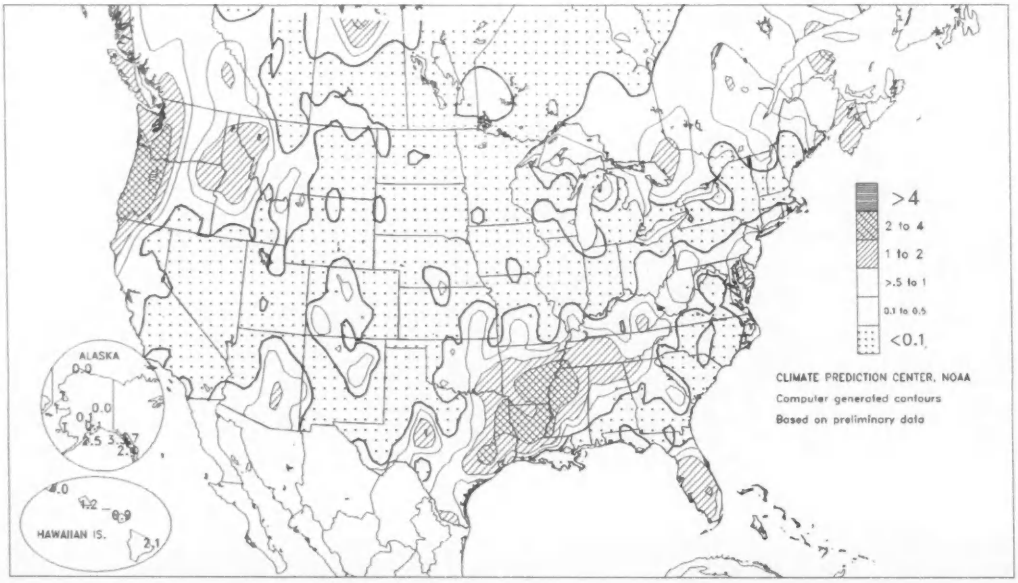
STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION						4-INCH SOIL TEMP. °F		NUMBER OF DAYS			
																TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN. SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN. SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
MS	INDIANOLA 1S	49	31	58	23	40	-	1.10	-	0.97	5.55	-	2.59	-	-	-	0	5	2	1
	INVERNESS 5E	49	32	58	23	40	-	0.78	-	0.69	4.79	-	2.38	-	49	39	0	5	2	1
	LYON	47	30	56	22	38	-	1.99	-	1.85	5.37	-	2.99	-	46	40	0	6	2	1
	MACON	52	30	63	23	41	-	0.51	-	0.50	6.13	-	2.54	-	49	41	0	5	2	1
	ONWARD	52	33	61	25	42	-	0.89	-	0.81	6.13	-	2.87	-	50	44	0	5	2	1
	PERTHSHIRE	48	29	57	21	38	-	2.16	-	2.13	6.16	-	3.35	-	46	40	0	5	2	1
	SCOTT	49	32	58	23	41	-	2.29	-	2.26	6.60	-	3.43	-	-	-	0	5	2	1
	SIDON	50	32	58	23	41	-	0.83	-	0.71	5.79	-	3.05	-	50	39	0	5	2	1
	STARKVILLE	51	30	61	21	40	-1	0.70	-0.63	0.62	4.78	61	2.07	75	47	40	0	5	2	1
	TUNICA 1W	46	26	55	18	36	-	2.61	-	2.22	6.05	-	3.67	-	-	-	0	6	3	1
	VANCE	46	28	56	20	37	-	2.57	-	2.36	6.48	-	3.60	-	-	-	0	6	2	1
	VERONA	49	27	58	20	38	-	1.06	-	0.78	4.80	-	2.05	-	47	38	0	5	2	1
	STONEVILLE [X]	49	31	59	24	40	-1	0.25	-1.01	0.25	4.64	57	1.33	49	49	41	0	6	1	0
MO	DELTA	38	20	44	14	29	-5	0.04	-0.92	0.04	3.53	52	1.55	65	35	33	0	7	1	0
	STEELE	42	28	52	19	34	-2	0.82	-0.35	0.47	5.02	64	2.17	75	40	36	0	6	2	0
	GLENNONVILLE	41	24	47	18	32	-3	0.25	-0.65	0.16	4.12	63	1.46	59	40	36	0	6	2	0
	PORTAGEVILLE LF	40	25	49	19	33	-2	0.41	-0.54	0.24	4.33	60	1.90	71	42	34	0	6	2	0
	CLARKTON	40	23	48	17	32	-3	0.33	-0.57	0.21	4.27	66	1.51	61	40	36	0	6	2	0
	CARDWELL	42	25	52	19	34	-2	0.75	-0.27	0.44	5.14	68	2.08	75	42	37	0	6	2	0
	CHARLESTON	39	22	46	16	30	-4	0.22	-0.54	0.12	4.62	67	1.86	76	39	35	0	6	2	0
	PORTAGEVILLE DC	41	24	49	17	32	-3	0.44	-0.51	0.23	4.68	65	2.56	95	42	34	0	6	2	0

Compiled by USDA/OCE/WAOB's Stoneville Field Office.
[X] Based on 1971-2000 normals.
- Sufficient data not available.

Weather and Crop Summary: Below-normal temperatures returned to the area for the majority of the week. Precipitation was recorded at the beginning and end of the week, with the latter event providing some of the highest rainfall totals—locally in excess of 2 inches—for the winter to date. Nevertheless, most locations continued to report below-normal seasonal precipitation. The rain improved the soil moisture profile and benefited pastures and winter wheat.

Total Precipitation (Inches)

JAN 18 - 24, 2004



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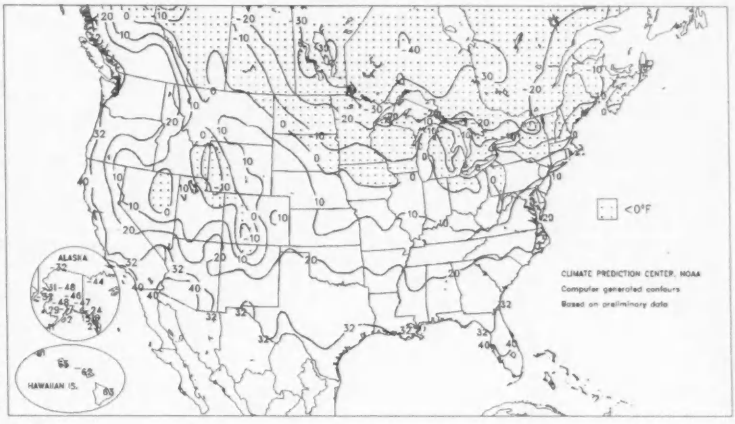
agricultural areas of **southern Texas** and **peninsular Florida**. On January 21, temperatures in the range of 25 to 30°F in **southern Louisiana** were not low enough to cause significant concern for new sugarcane growth. Elsewhere, the cool weather slowed or halted the growth of winter grains and cool-season pastures, but provided beneficial chill hours for **Southern** fruit trees. Late in the week, heavy rain (locally 2 inches or more) overspread areas from the **western Gulf Coast region to the Delta**, boosting soil moisture reserves. Farther west, the **High Plains** experienced mild (temperatures generally 2 to 12°F above normal), dry weather until late in the week, when an Arctic cold front edged into **Montana**. Some precipitation accompanied the cold intrusion into **Montana**, bolstering winter wheat's protective snow cover. At week's end, however, wheat fields were mostly bare from **western Nebraska southward into Texas**. For the second week in a row, mild, mostly dry weather prevailed in much of the **West**. Exceptions included the **Northwest**, where rain and snow showers continued, and the **Intermountain West**, where foggy conditions and air stagnation issues persisted.

Extreme Minimum Temperature (°F)

JAN 18 - 24, 2004



Early in the week, a departing **East Coast** storm dropped heavy snow in **northern New England**. Snowfall was especially heavy across **northern Maine**, where January 18-19 totals reached 21.5 inches in **Presque Isle** and 15.3 inches in **Caribou**. Farther south, **Bridgeport, CT**, netted a daily-record snowfall of 6.5 inches on January 18. Meanwhile, locally heavy showers and thunderstorms swept across **Florida**, generating numerous daily-record totals. **Florida** records for January 18 included 2.03 inches in **Ft. Myers**, 1.36 inches in **Naples**, and 1.18 inches in **Lakeland**.

By midweek, the focus for significant precipitation shifted to **Arizona**, where daily-record totals for January 22 included 0.60 inch in **Tucson** and 0.35 inch in **Phoenix**. On **Arizona's Mogollon Rim**, January 20-22 snowfall in **Flagstaff** reached 6.0 inches. Toward week's end, the storm system responsible for the **Southwestern** precipitation moved eastward, sparking heavy rainfall in the **western Gulf Coast region**. Daily-record totals for January 24 included 2.56 inches in **Shreveport, LA**, 2.29 inches in **College Station, TX**, and 2.05 inches in **Texarkana, AR**. Since most of the frozen precipitation associated with the storm did not arrive in the **Midwest** and **East** until Sunday, January 25, the event will be covered in next week's summary.

Toward week's end, snow preceded and accompanied a new surge of Arctic air across areas from the **northern Plains into the Northeast**. On January 23-24, light snow was widespread from the **upper Midwest into the Mid-Atlantic region**. By Sunday morning, January 25, the minimum of -7°F in **Cleveland, OH**, was its lowest temperature since February 4, 1996, when it was -10°F. In **Michigan, Flint's** January 25 minimum of -16°F was its lowest temperature since February 10, 1994, when the low dipped to -19°F. Farther west, daily-record snowfall totals for January 24 included 4.6 inches in **Glasgow, MT**, and 4.5 inches in **Williston, ND**. In contrast, the season-to-date snowfall in **Denver, CO**, stood at just 7.9 inches, including 1.8 inches in January.

Meanwhile, snow-covered **Western** valleys had little relief from persistently cold, foggy conditions. In **Salt Lake City, UT**, where snow depths ranged from 3 to 4 inches, temperatures climbed no higher than 27°F during the week. As a result, **Salt Lake City** set a record for its longest streak—22 days from January 3-24—with temperatures remaining below the freezing mark, surpassing its standard of 18 consecutive days most recently attained from December 20, 1990 - January 6, 1991. **Salt Lake City** also continued to receive sporadic light snow, stretching its streak of days with at least a trace of precipitation to 31 (December 25 - January 24) and demolishing its record of 24 days set from November 17 - December 10, 1983. Farther west, **Elko, NV**, reached 32°F on January 24, ending its fifth-longest spell with temperatures below the freezing mark at 13 days (January 11-23). **Elko's** longest such streak was 19 days, set from December 19, 1990 - January 6, 1991. Elsewhere in **Nevada**, **Wells** (-20°F) notched a daily-record low on January 22.

Following **Hawaii's** high-wind event of January 14, gusty winds returned to **Oahu and Maui Counties** on January 22-23, followed by a severe weather outbreak on January 25. Peak wind gusts on January 22-23 on **Oahu** included 60 m.p.h. at **Wheeler Air Force Base** and 47 m.p.h. in **Honolulu**. On January 25, a funnel cloud was spotted in **Honolulu**, while a tornado was reported near **Mililani, Oahu**. Locally heavy rainfall accompanied the unsettled weather, with 24-hour totals topping 5 inches in locations such as the **Big Island's Kapapala Ranch** (5.32 inches on January 22-23) and **Makapulapai, Molokai** (5.43 inches on January 24-25). On **Kauai, Lihue** (3.23 inches on January 22) collected a daily-record sum. Meanwhile in **Alaska**, temperatures returned to near- to above-normal levels. **Valdez, AK** (42°F on January 23), posted a daily-record high. Significant precipitation was confined to **southern Alaska**, where weekly totals included 3.30 inches in **Yakutat** and 2.26 inches on **Annette Island**.

National Weather Data for Selected Cities

Weather Data for the Week Ending January 24, 2004

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	52	28	65	19	40	-2	0.45	-0.80	0.43	5.12	59	1.82	43	83	40	0	5	2	0
	HUNTSVILLE	47	26	59	18	36	-4	0.65	-0.58	0.33	5.05	51	1.89	44	79	61	0	5	2	0
	MOBILE	62	35	71	27	48	-2	0.03	-1.32	0.03	6.16	68	2.37	54	72	46	0	4	1	0
	MONTGOMERY	57	31	67	23	44	-3	0.17	-0.99	0.13	5.80	66	1.86	49	93	54	0	5	3	0
AK	ANCHORAGE	24	6	40	-17	15	-1	0.05	-0.08	0.05	2.41	156	0.31	83	89	82	0	7	1	0
	BARROW	-12	-22	-6	-32	-17	-3	0.00	0.00	0.00	0.16	133	0.08	800	80	76	0	7	0	0
	FAIRBANKS	-3	-25	14	-46	-14	-4	0.00	-0.11	0.00	0.44	38	0.00	0	***	***	0	7	0	0
	JUNEAU	39	31	45	19	35	9	1.65	0.62	0.76	11.83	129	5.91	158	93	86	0	4	6	2
	KODIAK	35	22	40	2	29	-1	2.55	0.73	1.22	14.42	103	4.19	66	82	70	0	6	4	2
	NOME	13	-2	30	-32	5	-1	0.01	-0.18	0.01	1.45	87	0.24	36	78	69	0	7	1	0
AZ	FLAGSTAFF	38	22	47	15	30	0	0.45	-0.05	0.31	1.66	49	0.74	47	94	54	0	7	4	0
	PHOENIX	66	50	70	47	58	4	0.62	0.46	0.44	0.81	52	0.62	98	65	50	0	0	5	0
	TUCSON	61	43	67	39	52	0	0.71	0.52	0.57	0.95	53	0.79	105	84	62	0	0	5	1
	YUMA	67	49	72	45	58	-1	0.38	0.32	0.25	0.38	56	0.38	146	70	60	0	0	3	0
AR	FORT SMITH	51	27	62	21	39	1	0.28	-0.24	0.27	4.23	81	2.39	132	87	48	0	6	2	0
	LITTLE ROCK	50	28	61	20	39	-1	2.26	1.46	2.25	7.07	95	3.09	112	86	41	0	6	2	1
CA	BAKERSFIELD	55	41	64	35	48	0	0.13	-0.15	0.13	1.83	113	0.53	62	94	75	0	0	1	0
	FRESNO	51	40	58	32	45	-2	0.01	-0.49	0.01	3.10	106	0.15	9	93	86	0	1	1	0
	LOS ANGELES	64	51	75	46	58	1	0.01	-0.70	0.01	1.64	41	0.48	22	73	59	0	0	1	0
	REDDING	56	35	64	28	46	0	0.06	-1.46	0.05	13.72	143	1.90	38	87	72	0	2	2	0
	SACRAMENTO	54	38	61	31	46	-1	0.19	-0.73	0.16	6.09	115	1.83	64	99	71	0	1	4	0
	SAN DIEGO	64	52	68	47	58	0	0.00	-0.52	0.00	0.74	25	0.13	8	80	65	0	0	0	0
	SAN FRANCISCO	56	46	59	40	51	1	0.26	-0.80	0.21	9.39	151	2.96	89	94	81	0	0	3	0
	STOCKTON	***	***	***	***	***	***	***	***	***	4.68	129	1.56	86	***	***	***	***	***	***
CO	ALAMOSA	31	1	42	-9	16	1	0.02	-0.01	0.01	0.07	14	0.02	13	85	71	0	7	2	0
	CO SPRINGS	43	19	60	12	31	3	0.10	0.07	0.10	0.35	57	0.29	153	87	37	0	7	1	0
	DENVER INTL	46	18	59	12	32	4	0.00	-0.02	0.00	0.14	29	0.02	11	80	36	0	7	0	0
	GRAND JUNCTION	34	14	37	9	24	-2	0.00	-0.11	0.00	1.17	121	0.62	138	87	72	0	7	0	0
	PUEBLO	43	18	65	13	31	1	0.25	0.19	0.24	0.30	48	0.25	104	92	65	0	7	2	0
CT	BRIDGEPORT	27	13	35	7	20	-10	0.63	-0.20	0.63	4.75	76	1.47	53	63	47	0	7	1	1
	HARTFORD	25	12	34	2	18	-8	0.08	-0.78	0.08	4.96	76	1.05	35	67	48	0	7	1	0
DC	WASHINGTON	34	21	49	17	27	-8	0.33	-0.37	0.33	5.23	94	0.91	36	64	38	0	7	1	0
DE	WILMINGTON	29	18	41	11	23	-8	0.46	-0.30	0.42	5.80	95	0.99	37	77	45	0	7	3	0
FL	DAYTONA BEACH	67	45	73	33	56	-2	0.37	-0.33	0.25	1.99	39	0.44	18	98	50	0	0	2	0
	JACKSONVILLE	65	36	74	30	51	-2	0.10	-0.75	0.05	1.50	28	0.30	11	86	43	0	5	2	0
	KEY WEST	70	60	80	53	65	-5	0.48	0.00	0.47	1.70	44	0.67	39	87	67	0	0	2	0
	MIAMI	74	58	83	49	65	-3	1.00	0.58	1.00	2.30	65	1.05	77	88	49	0	0	1	1
	ORLANDO	68	46	72	35	57	-4	1.34	0.79	1.06	2.94	71	1.38	75	90	55	0	0	2	1
	PENSACOLA	61	37	69	27	49	-3	0.01	-1.23	0.01	4.91	61	1.28	31	79	46	0	2	1	0
	TALLAHASSEE	64	33	76	27	49	-3	0.22	-1.00	0.20	2.63	32	0.62	15	88	47	0	5	2	0
	TAMPA	66	47	70	42	57	-4	1.69	1.18	1.31	3.38	85	2.08	125	96	56	0	0	2	1
	WEST PALM	74	52	80	42	63	-3	0.51	-0.40	0.51	4.80	80	0.54	19	93	56	0	0	1	1
GA	ATHENS	53	30	65	23	42	0	0.13	-0.94	0.12	3.40	47	1.10	31	71	48	0	5	2	0
	ATLANTA	53	30	64	22	42	-1	0.12	-1.07	0.07	4.02	53	1.33	35	76	51	0	5	2	0
	AUGUSTA	58	30	70	21	44	-1	0.07	-0.97	0.07	2.42	37	0.40	12	79	39	0	5	1	0
	COLUMBUS	57	33	67	26	45	-2	0.15	-0.92	0.08	4.27	53	1.34	37	85	38	0	5	3	0
	MACON	60	32	72	26	46	1	0.24	-0.92	0.23	5.76	75	0.90	24	80	33	0	5	2	0
	SAVANNAH	61	38	72	27	48	-1	0.02	-0.88	0.02	2.04	35	0.56	18	74	44	0	3	1	0
HI	HILO	82	64	85	63	73	2	2.13	-0.15	1.22	13.12	73	3.07	41	84	73	0	0	2	2
	HONOLULU	79	69	81	65	74	1	1.19	0.61	0.55	11.71	238	6.90	332	90	80	0	0	5	1
	KAHULUI	81	65	83	62	73	1	0.88	0.05	0.88	9.18	154	6.46	224	92	84	0	0	1	1
	LIHUE	79	66	83	61	73	1	4.01	3.01	2.11	9.45	113	6.43	178	91	81	0	0	3	2
ID	BOISE	31	24	35	20	28	-3	0.19	-0.11	0.19	2.57	106	0.95	91	83	74	0	7	1	0
	LEWISTON	42	34	46	31	38	4	0.14	-0.11	0.07	2.35	125	0.56	67	86	72	0	2	5	0
	POCATELLO	23	9	32	0	16	-9	0.00	-0.25	0.00	1.10	56	0.13	15	89	83	0	7	0	0
IL	CHICAGO/O'HARE	24	6	37	3	15	-7	0.00	-0.37	0.00	1.78	48	0.12	9	71	55	0	7	0	0
	MOLINE	28	10	43	1	19	-2	0.00	-0.33	0.00	3.28	96	0.48	40	64	52	0	7	0	0
	PEORIA	31	11	43	5	21	-1	0.08	-0.22	0.08	2.11	60	0.47	42	73	52	0	7	1	0
	ROCKFORD	22	5	36	0	14	-5	0.03	-0.27	0.03	3.57	114	0.35	33	74	60	0	7	1	0
	SPRINGFIELD	34	14	44	8	24	-1	0.01	-0.31	0.01	2.67	71	1.19	96	72	58	0	7	1	0
IN	EVANSVILLE	38	19	44	13	27	-4	0.13	-0.52	0.13	2.97	52	1.77	81	76	53	0	7	1	0
	FORT WAYNE	25	7	34	-1	16	-7	0.07	-0.37	0.07	4.18	96	1.56	99	85	61	0	7	1	0
	INDIANAPOLIS	32	12	36	5	22	-4	0.00	-0.55	0.00	7.16	145	3.73	196	76	48	0	7	0	0
	SOUTH BEND	26	9	35	4	17	-6	0.04	-0.43	0.04	2.07	43	0.37	21	85	67	0	7	1	0
IA	BURLINGTON	31	12	46	3	22	-1	0.00	-0.28	0.00	4.60	148	0.28	28	78	49	0	7	0	0
	CEDAR RAPIDS	26	7	42	-3	16	-2	0.00	-0.22	0.00	2.20	98	0.40	53	76	47	0	7	0	0
	DES MOINES	30	10	53	1	20	-1	0.00	-0.22	0.00	1.56	75	0.67	88	68	55	0	7	0	0
	DUBUQUE	22	4	35	-5	13	-4	0.00	-0.28	0.00	1.78	68	0.11	12	71	62	0	7	0	0
	SIOUX CITY	32	11	57	3	22	3	0.01	-0.10	0.01	0.26	24	0.03	7	74	55	0	7	1	0
	WATERLOO	25	4	40	-6	15	-1	0.00	-0.18	0.00	0.63	37	0.09	16	69	56	0	7	0	0
KS	CONCORDIA	41	20	61	6	31	4	0.00	-0.12	0.00	0.82	60	0.04	8	74	57	0	7	0	0
	DODGE CITY	47	21	65	11	34	4	0.00	-0.11	0.00	0.50	40	0.00	0	82	40	0	7	0	0
	GOODLAND	46	23	67	15	34	6	0.00	-0.07	0.00	0.57	78	0.01	3	78	59	0	7	0	0
	TOPEKA	39	18	58	8	29	2	0.00	-0.19	0.00	2.78	131	0.42	60	74	63	0	7	0	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending January 24, 2004

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN.: SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN.: SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	42	23	59	12	33	3	0.00	-0.15	0.00	2.51	125	1.62	245	88	64	0	6	0	0
KY	JACKSON	37	18	45	9	28	-6	0.89	0.12	0.89	7.46	107	3.67	136	79	44	0	7	1	1
	LEXINGTON	35	16	44	8	26	-6	0.24	-0.48	0.24	6.69	101	2.80	108	68	51	0	7	1	0
	LOUISVILLE	38	20	45	13	29	-4	0.24	-0.48	0.24	6.02	97	2.89	115	70	42	0	7	1	0
	PADUCAH	39	21	48	15	30	-3	0.32	-0.46	0.31	4.51	85	2.31	90	86	45	0	7	2	0
LA	BATON ROUGE	61	36	70	26	48	-2	0.07	-1.36	0.07	4.13	42	1.47	31	94	41	0	4	1	0
	LAKE CHARLES	61	39	67	30	50	-1	0.14	-1.13	0.13	7.20	81	3.72	86	94	52	0	2	2	0
	NEW ORLEANS	61	40	71	33	50	-2	0.00	-1.40	0.00	3.88	41	1.92	44	87	52	0	0	0	0
	SHREVEPORT	57	35	67	25	46	0	2.81	1.77	2.56	7.80	97	4.19	120	86	46	0	4	2	1
ME	CARIBOU	16	-1	26	-14	7	-2	0.74	0.10	0.58	6.01	109	0.94	40	84	67	0	7	3	1
	PORTLAND	25	8	33	-4	16	-5	0.02	-0.88	0.02	3.94	53	0.22	7	65	39	0	7	1	0
MD	BALTIMORE	31	18	43	14	25	-7	0.22	-0.54	0.22	5.58	92	0.86	32	72	51	0	7	1	0
MA	BOSTON	28	15	36	4	21	-8	0.15	-0.73	0.15	6.00	89	0.94	31	62	36	0	7	1	0
	WORCESTER	22	9	33	-3	15	-8	0.00	-0.91	0.00	5.41	78	0.85	27	75	42	0	7	0	0
MI	ALPENA	19	-5	31	-17	7	-10	0.00	-0.37	0.00	2.06	65	0.67	49	80	51	0	7	0	0
	GRAND RAPIDS	23	7	33	0	15	-7	0.01	-0.43	0.01	1.58	37	0.35	23	78	57	0	7	1	0
	HOUGHTON LAKE	17	-6	25	-12	6	-11	0.01	-0.34	0.01	2.28	77	1.08	89	81	61	0	7	1	0
	LANSING	22	-1	32	-16	10	-11	0.12	-0.24	0.12	2.07	62	0.64	54	81	63	0	7	1	0
	MUSKEGON	24	12	34	5	18	-5	0.24	-0.24	0.17	2.55	59	0.99	58	82	71	0	7	5	0
	TRAVERSE CITY	18	6	27	-1	12	-8	0.13	-0.54	0.08	2.70	55	1.11	48	90	65	0	7	3	0
MN	DULUTH	6	-15	21	-22	-4	-12	0.00	-0.28	0.00	0.54	31	0.00	0	79	68	0	7	0	0
	INT'L FALLS	2	-24	17	-36	-11	-14	0.07	-0.12	0.06	0.97	75	0.59	100	82	64	0	7	2	0
	MINNEAPOLIS	14	-3	30	-10	6	-7	0.05	-0.17	0.04	0.84	48	0.05	7	72	59	0	7	2	0
	ROCHESTER	17	-1	32	-10	8	-4	0.00	-0.22	0.00	0.44	26	0.01	1	76	62	0	7	0	0
	ST. CLOUD	11	-7	28	-13	2	-7	0.04	-0.13	0.04	0.32	26	0.04	7	82	60	0	7	1	0
MS	JACKSON	54	31	63	23	42	-3	0.40	-0.88	0.40	6.19	64	2.85	65	92	47	0	5	1	0
	MERIDIAN	54	30	60	22	42	-4	0.38	-0.97	0.36	5.00	51	2.37	52	90	55	0	5	2	0
	TUPELO	48	26	59	19	37	-3	1.07	-0.02	0.83	5.54	55	2.34	58	83	59	0	6	2	1
MO	COLUMBIA	38	15	54	9	26	-2	0.00	-0.38	0.00	5.21	140	1.74	138	80	45	0	7	0	0
	KANSAS CITY	39	16	57	8	28	1	0.00	-0.24	0.00	2.36	94	0.40	47	81	50	0	7	0	0
	SAINT LOUIS	40	19	55	12	29	-1	0.00	-0.47	0.00	5.82	130	3.47	216	64	50	0	7	0	0
	SPRINGFIELD	40	22	55	12	31	-1	0.01	-0.46	0.01	6.94	147	3.01	194	81	58	0	6	1	0
MT	BILLINGS	40	26	43	17	33	9	0.14	-0.03	0.12	0.94	74	0.18	30	88	55	0	6	3	0
	BUTTE	33	10	37	-3	21	3	0.13	0.02	0.08	0.51	56	0.14	37	92	59	0	7	2	0
	GLASGOW	26	9	39	1	18	7	0.09	0.03	0.08	0.65	107	0.12	50	90	84	0	7	2	0
	GREAT FALLS	44	24	47	1	34	12	0.13	0.00	0.13	0.34	29	0.23	44	80	40	0	6	1	0
	HAVRE	35	20	42	5	27	13	0.07	-0.01	0.05	0.35	41	0.11	32	92	83	0	7	2	0
	KALISPELL	32	24	35	18	28	6	0.83	0.53	0.47	2.86	104	1.51	137	98	95	0	7	5	0
	MISSOULA	31	24	37	18	28	4	0.21	-0.01	0.11	1.31	67	0.45	56	95	88	0	7	4	0
NE	GRAND ISLAND	38	17	62	5	27	4	0.00	-0.11	0.00	0.24	23	0.07	18	79	63	0	7	0	0
	LINCOLN	37	16	62	3	27	5	0.00	-0.13	0.00	0.59	43	0.07	13	75	59	0	7	0	0
	NORFOLK	36	13	59	1	24	3	0.00	-0.11	0.00	0.21	20	0.00	0	76	61	0	7	0	0
	NORTH PLATTE	43	17	61	13	30	7	0.00	-0.08	0.00	0.10	15	0.00	0	89	48	0	7	0	0
	OMAHA	35	14	61	4	25	3	0.00	-0.17	0.00	1.28	86	0.44	79	73	60	0	7	0	0
	SCOTTSBLUFF	46	20	55	16	33	8	0.00	-0.11	0.00	0.61	65	0.11	29	86	60	0	7	0	0
	VALENTINE	41	19	55	13	30	9	0.02	-0.04	0.02	0.31	60	0.08	42	80	59	0	7	1	0
NV	ELY	36	6	48	-3	21	-5	0.00	-0.17	0.00	1.20	115	0.01	2	83	71	0	7	0	0
	LAS VEGAS	57	38	59	33	48	1	0.00	-0.13	0.00	0.96	120	0.00	0	48	35	0	0	0	0
	RENO	47	26	52	20	36	2	0.57	0.33	0.57	2.16	133	0.94	125	84	73	0	6	1	1
	WINNEMUCCA	37	18	43	7	27	-4	0.02	-0.15	0.02	2.16	150	0.37	59	86	72	0	7	1	0
NH	CONCORD	22	4	28	-10	13	-7	0.01	-0.65	0.01	5.93	114	0.62	27	68	42	0	7	1	0
NJ	NEWARK	28	16	39	8	22	-9	0.49	-0.41	0.49	6.63	100	1.50	49	63	48	0	7	1	0
NM	ALBUQUERQUE	48	29	53	25	38	2	0.06	-0.02	0.06	0.21	25	0.10	29	79	43	0	6	1	0
NY	ALBANY	21	8	33	-3	15	-7	0.00	-0.55	0.00	5.96	131	0.48	25	75	51	0	7	0	0
	BINGHAMTON	17	5	28	-4	11	-10	0.01	-0.57	0.01	4.54	92	1.41	73	83	67	0	7	1	0
	BUFFALO	21	7	32	3	14	-10	0.20	-0.49	0.06	5.53	89	1.89	77	83	62	0	7	6	0
	ROCHESTER	20	9	31	2	14	-9	0.57	0.06	0.19	4.54	101	2.12	119	86	69	0	7	5	0
	SYRACUSE	20	8	32	-6	14	-8	0.24	-0.34	0.07	4.52	89	1.42	72	89	70	0	7	6	0
NC	ASHEVILLE	46	22	58	17	34	-2	0.01	-0.93	0.01	2.89	45	0.24	8	87	43	0	7	1	0
	CHARLOTTE	50	28	63	19	38	-4	0.18	-0.73	0.18	2.98	48	0.58	19	66	38	0	5	1	0
	GREENSBORO	46	25	60	16	35	-3	0.10	-0.70	0.10	3.03	53	0.38	14	65	33	0	6	1	0
	HATTERAS	46	32	60	28	39	-7	0.28	-1.03	0.28	6.50	71	0.79	17	72	50	0	3	1	0
	RALEIGH	48	26	60	19	37	-3	0.28	-0.65	0.28	4.33	71	0.81	26	83	42	0	6	1	0
	WILMINGTON	54	31	69	22	43	-3	0.11	-0.93	0.11	5.40	74	0.45	13	93	49	0	5	1	0
ND	BISMARCK	20	1	33	-9	10	0	0.02	-0.06	0.01	0.51	71	0.03	11	79	70	0	7	2	0
	DICKINSON	27	7	38	-2	17	3	0.01	-0.07	0.01	0.27	48	0.06	27	91	68	0	7	1	0
	FARGO	11	-10	28	-16	1	-6	0.02	-0.15	0.01	1.20	106	0.02	4	80	67	0	7	2	0
	GRAND FORKS	9	-11	27	-20	-1	-6	0.00	-0.14	0.00	0.67	66	0.00	0	87	69	0	7	0	0
	JAMESTOWN	12	-10	29	-16	1	-8	0.03	-0.11	0.02	0.50	57	0.03	7	90	73	0	7	2	0
	WILLISTON	22	3	34	-6	13	5	0.23	0.12	0.23	0.66	69	0.44	116	85	78	0	7	1	0
OH	AKRON-CANTON	22	5	33	-1	14	-11	0.11	-0.43	0.07	5.34	109	2.43	128	83	64	0	7	4	0
	CINCINNATI	33	15	41	9	24	-6	0.11	-0.52	0.11	5.98	108	3.72	166	73	54	0	7	1	0
	CLEVELAND	24	6	34	-4	15	-10	0.24	-0.31	0.10	6.08	121	2.05	108	92	68	0	7	4	0
	COLUMBUS	26	11	34	6	18	-10	0.24	-0.31	0.17	7.57	157	4.79	252	77	57	0	7	3	0
	DAYTON	28	10	34	4	19	-7	0.02	-0.54	0.02	6.45	127	4.01	203	84	57	0	7	1	0
	MANSFIELD	23	5	34	0	14	-10	0.04	-0.54	0.03	5.57	105	2.30	114	91	59	0	7	2	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending January 24, 2004

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	24	4	33	-5	14	-10	0.03	-0.38	0.03	3.57	87	0.32	22	82	58	0	7	1	0
	YOUNGSTOWN	22	7	33	1	14	-11	0.30	-0.20	0.13	5.60	118	2.92	164	84	67	0	7	4	0
OK	OKLAHOMA CITY	50	29	63	19	39	2	0.26	0.02	0.25	2.55	88	1.44	144	85	44	0	6	2	0
	TULSA	47	27	64	17	37	1	0.03	-0.30	0.02	4.07	112	1.61	133	76	54	0	6	2	0
OR	ASTORIA	50	38	51	32	44	1	2.30	0.13	0.60	16.60	93	6.73	91	96	92	0	1	5	3
	BURNS	30	17	38	12	24	-1	0.34	0.09	0.17	2.78	128	1.22	139	94	85	0	7	3	0
	EUGENE	51	40	56	34	45	5	1.65	-0.09	0.68	15.70	111	5.07	86	95	89	0	0	5	2
	MEDFORD	48	33	51	24	41	2	0.81	0.26	0.53	7.05	147	2.38	126	100	80	0	4	4	1
	PENDLETON	35	29	41	20	32	-2	0.83	0.50	0.62	4.22	165	1.50	140	99	91	0	7	5	1
	PORTLAND	44	35	47	28	39	-1	1.70	0.57	0.82	10.76	112	3.30	85	97	87	0	2	5	1
	SALEM	50	37	53	27	43	2	1.24	-0.08	0.61	14.51	133	4.07	92	95	91	0	2	6	1
PA	ALLENTOWN	27	12	37	6	20	-7	0.40	-0.39	0.40	6.48	106	1.51	56	69	49	0	7	1	0
	ERIE	23	11	33	-1	17	-10	0.03	-0.49	0.02	4.26	75	1.29	66	80	65	0	7	2	0
	MIDDLETOWN	27	15	39	9	21	-7	0.42	-0.21	0.39	5.00	93	1.60	76	80	48	0	7	3	0
	PHILADELPHIA	30	19	42	13	24	-8	0.45	-0.33	0.43	6.46	107	1.00	37	70	44	0	7	2	0
	PITTSBURGH	24	8	36	4	16	-11	0.11	-0.50	0.07	6.87	140	3.53	171	84	58	0	7	2	0
	WILKES-BARRE	22	11	32	3	17	-9	0.04	-0.51	0.03	5.54	126	1.57	86	78	50	0	7	2	0
	WILLIAMSPORT	25	13	34	5	19	-8	0.01	-0.65	0.01	6.31	125	1.89	89	68	50	0	7	1	0
RI	PROVIDENCE	28	13	36	5	20	-9	0.20	-0.78	0.20	7.69	103	1.26	38	64	44	0	7	1	0
SC	BEAUFORT	60	37	73	25	48	0	0.03	-0.90	0.03	2.17	35	0.37	12	80	35	0	2	1	0
	CHARLESTON	60	36	72	24	48	0	0.09	-0.83	0.09	2.34	37	0.48	15	82	39	0	3	1	0
	COLUMBIA	56	31	69	20	44	-1	0.08	-0.99	0.08	2.46	35	0.33	9	69	39	0	4	1	0
	GREENVILLE	52	29	66	22	41	0	0.12	-0.87	0.12	3.26	45	0.59	17	64	35	0	5	1	0
SD	ABERDEEN	18	-2	32	-11	8	-3	0.16	0.08	0.11	0.52	71	0.19	54	81	65	0	7	4	0
	HURON	24	4	46	-7	14	0	0.02	-0.08	0.01	0.21	29	0.02	6	81	57	0	7	2	0
	RAPID CITY	42	22	52	15	32	9	0.00	-0.06	0.00	0.29	45	0.04	17	88	54	0	7	0	0
	SIOUX FALLS	25	4	48	-5	15	1	0.01	-0.10	0.01	1.08	123	0.01	3	76	60	0	7	1	0
TN	BRISTOL	40	20	52	15	30	-4	0.50	-0.30	0.50	6.78	112	2.40	90	82	44	0	7	1	1
	CHATTANOOGA	49	26	63	20	37	-2	0.32	-0.92	0.27	5.89	66	1.51	37	74	48	0	5	2	0
	KNOXVILLE	43	24	56	15	33	-4	0.58	-0.44	0.58	5.20	65	1.79	51	71	42	0	5	1	1
	MEMPHIS	46	28	58	20	37	-3	1.23	0.30	1.08	5.07	57	1.99	62	79	45	0	6	2	1
	NASHVILLE	43	23	56	15	33	-4	0.86	-0.01	0.86	5.23	69	2.04	67	72	44	0	6	1	1
TX	ABILENE	56	35	69	26	45	1	0.12	-0.07	0.09	1.66	83	1.65	226	87	64	0	3	2	0
	AMARILLO	48	27	63	23	38	2	0.00	-0.11	0.00	0.61	56	0.52	111	90	48	0	6	0	0
	AUSTIN	59	40	65	24	50	0	0.43	0.04	0.42	2.48	64	1.97	135	78	48	0	2	2	0
	BEAUMONT	60	42	68	33	51	-1	0.05	-1.21	0.05	6.14	63	2.95	66	98	54	0	0	1	0
	BROWNSVILLE	69	54	76	38	62	2	0.54	0.22	0.22	2.15	104	1.80	189	91	80	0	0	5	0
	CORPUS CHRISTI	62	49	69	39	56	0	0.19	-0.15	0.16	2.27	77	1.70	144	88	70	0	0	3	0
	DEL RIO	57	43	61	33	50	-1	0.32	0.20	0.15	0.92	84	0.88	251	87	72	0	0	3	0
	EL PASO	56	37	59	35	46	1	0.00	-0.08	0.00	0.34	31	0.33	100	86	43	0	0	0	0
	FORT WORTH	55	36	65	27	46	2	0.52	0.16	0.48	3.99	99	3.03	208	85	50	0	3	2	0
	GALVESTON	58	47	66	41	53	-3	0.07	-0.86	0.07	8.57	128	2.86	91	92	62	0	0	1	0
	HOUSTON	61	42	71	34	52	0	1.82	1.00	1.82	7.91	121	4.92	174	79	58	0	0	1	1
	LUBBOCK	48	32	58	28	40	2	0.00	-0.09	0.00	1.91	195	1.91	616	94	77	0	6	0	0
	MIDLAND	54	37	60	30	45	2	0.00	-0.11	0.00	0.47	46	0.47	124	84	68	0	1	0	0
	SAN ANGELO	55	38	62	25	47	2	0.06	-0.11	0.04	0.44	29	0.44	79	90	71	0	2	2	0
	SAN ANTONIO	59	44	65	32	51	1	0.56	0.20	0.52	2.26	70	2.15	172	88	52	0	1	3	1
	VICTORIA	62	46	70	34	54	1	0.73	0.20	0.70	4.77	110	2.67	143	93	64	0	0	2	1
	WACO	57	37	65	27	47	1	0.63	0.24	0.43	4.56	109	4.07	285	92	68	0	3	3	0
	WICHITA FALLS	54	31	65	23	43	3	0.31	0.09	0.31	1.49	59	1.38	164	87	62	0	6	1	0
UT	SALT LAKE CITY	25	12	27	6	19	-11	0.01	-0.29	0.01	4.27	190	0.30	29	89	77	0	7	1	0
VT	BURLINGTON	17	3	30	-14	10	-7	0.02	-0.48	0.02	5.17	133	0.28	17	77	51	0	7	1	0
VA	LYNCHBURG	40	19	49	11	30	-4	0.33	-0.47	0.33	4.49	76	1.14	42	64	38	0	7	1	0
	NORFOLK	44	28	57	24	36	-4	0.38	-0.52	0.38	7.16	119	0.92	31	60	36	0	6	1	0
	RICHMOND	38	21	52	17	30	-6	0.43	-0.35	0.43	5.32	90	1.04	38	66	42	0	7	1	0
	ROANOKE	40	23	49	17	31	-5	0.22	-0.52	0.22	4.02	76	1.07	44	62	42	0	7	1	0
	WASH/DULLES	32	19	45	15	25	-7	0.25	-0.43	0.25	5.43	100	0.86	37	65	40	0	7	1	0
WA	OLYMPIA	48	39	52	32	44	6	1.25	-0.46	0.56	10.19	75	4.17	72	95	88	0	1	5	1
	QUILLAYUTE	48	38	51	30	43	2	1.76	-1.33	0.49	21.59	86	7.94	76	97	91	0	1	6	0
	SEATTLE-TACOMA	47	38	52	32	42	1	0.86	-0.30	0.66	6.85	72	2.97	76	96	90	0	1	3	1
	SPOKANE	33	30	34	28	31	3	0.67	0.28	0.28	3.60	99	1.46	107	98	87	0	7	5	0
	YAKIMA	36	31	41	26	33	3	0.11	-0.13	0.10	4.12	182	2.05	233	98	87	0	7	2	0
WV	BECKLEY	29	13	41	7	21	-9	0.34	-0.38	0.33	4.62	83	2.29	93	99	73	0	7	2	0
	CHARLESTON	33	16	40	10	24	-9	0.58	-0.16	0.58	5.98	103	3.09	126	78	54	0	7	1	1
	ELKINS	28	8	40	-2	18	-10	0.60	-0.17	0.39	4.77	79	2.02	77	88	57	0	7	4	0
	HUNTINGTON	34	18	42	11	26	-6	0.35	-0.35	0.35	5.43	93	2.77	114	71	47	0	7	1	0
WI	EAU CLAIRE	13	-6	32	-13	4	-8	0.08	-0.16	0.08	1.38	77	0.25	33	79	52	0	7	1	0
	GREEN BAY	14	-7	29	-14	3	-12	0.13	-0.15	0.09	2.83	123	1.15	128	77	56	0	7	2	0
	LA CROSSE	19	1	37	-8	10	-6	0.07	-0.21	0.04	0.94	45	0.22	26	71	45	0	7	1	0
	MADISON	17	1	32	-7	9	-8	0.06	-0.22	0.06	2.50	98	0.50	56	72	61	0	7	1	0
	MILWAUKEE	29	3	76	-5	16	-4	0.00	-0.41	0.00	2.29	64	0.26	19	72	53	0	7	0	0
WY	CASPER	39	22	46	14	31	9	0.02	-0.09	0.02	0.41	41	0.02	5	63	48	0	7	1	0
	CHEYENNE	43	21	53	13	32	6	0.00	-0.08	0.00	0.78	105	0.02	7	61	35	0	6	0	0
	LANDER	31	12	44	6	21	1	0.02	-0.09	0.02	0.89	90	0.07	18	86	76	0	7	1	0
	SHERIDAN	38	21	48	16	30	8	0.00	-0.17	0.00	0.90	74	0.03	6	80	70	0	7	0	0

Based on 1971-2000 normals

*** Not Available

NOTE: These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.

National Agricultural Summary

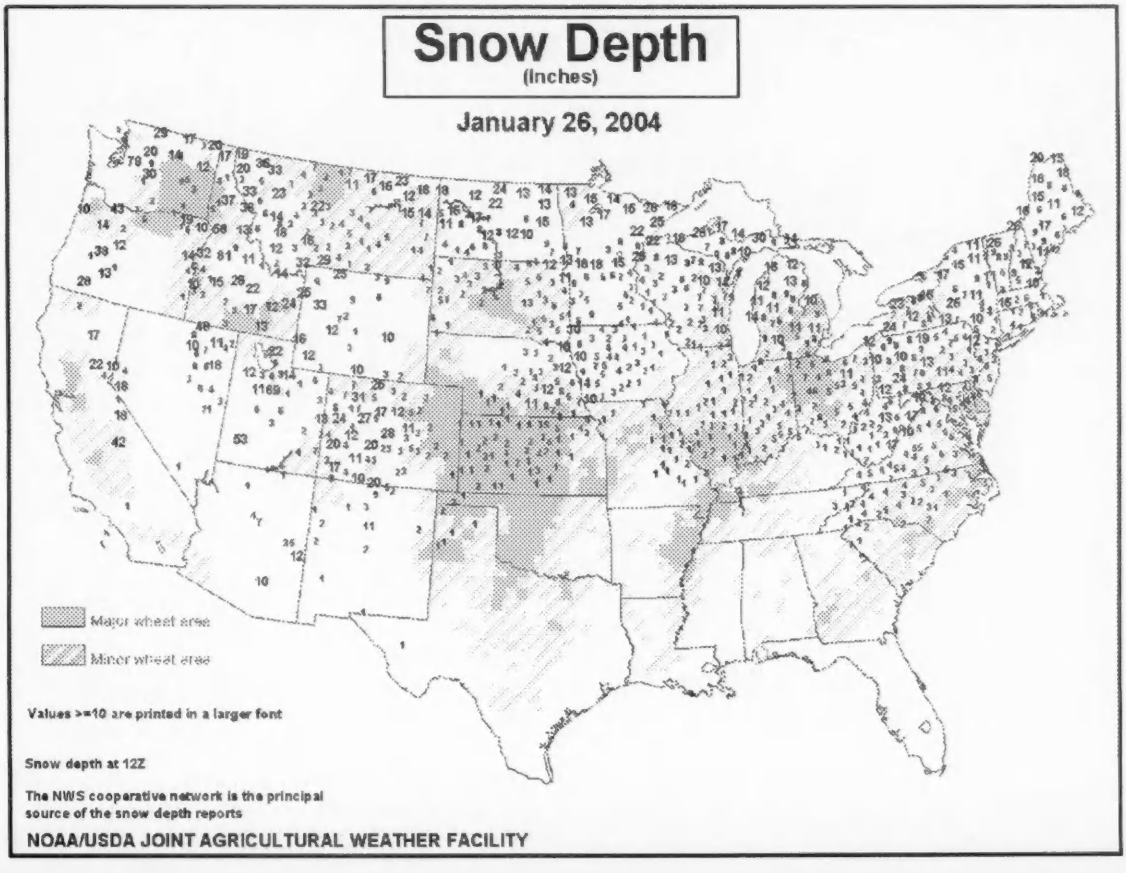
January 19 - 25, 2004

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Temperatures were below normal in the eastern half of the Nation, averaging 9 degrees Fahrenheit or more below normal in the Great Lakes Region, Ohio Valley, and Northeast. In the western half of the Nation, temperatures were above normal, except in central California and the Great Basin. Conditions were dry across most of the Nation, though some moderate to heavy precipitation occurred in the Mississippi Delta and Pacific Northwest. Only light, scattered precipitation fell across the Corn Belt and Great Plains. The Atlantic Coast States were also mostly dry, though southern Florida received moderate rainfall.

In Texas, some small grain acreage benefited from rainfall, but much of the acreage in the Plains was still stressed by extremely dry conditions. Harvest of sugarcane and vegetables was active in Florida, and nearly ideal weather was reported for citrus crops. The California citrus harvest continued with few delays and sugarbeets were progressing well, but growth of small grains was limited by cool temperatures. In Arizona, citrus and vegetable harvest was active and small grain seeding was progressing normally. The banana crop was in fair to good condition in Hawaii and papaya harvest was active.


Snow Depth
(Inches)
January 26, 2004
Major wheat area
Minor wheat area
Values >=10 are printed in a larger font
Snow depth at 12Z
The NWS cooperative network is the principal source of the snow depth reports
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

International Weather and Crop Summary

January 18 - 24, 2004

International Weather and Crop Highlights and Summaries provided by USDA/WAOB

HIGHLIGHTS

EUROPE: Widespread precipitation covered most of Europe, except in Spain, where rain was needed to maintain favorable crop conditions. Snow cover protected dormant winter crops from bitterly cold weather in eastern Europe.

FSU-WESTERN: Occasional light to moderate snow increased snow depths from Belarus eastward through northern Russia, while a major winter storm spread moderate to heavy snow across winter wheat areas in Moldova and south-central Ukraine.

MIDDLE EAST: Across Turkey and the coastal eastern Mediterranean, widespread precipitation continued to boost moisture supplies for winter crops, while unseasonably warm weather caused winter grains to lose winter hardiness in western Iran.

NORTHWESTERN AFRICA: In Morocco, persistent dryness reduced soil moisture for vegetative winter grains, while across Tunisia and Algeria, widespread rain maintained adequate soil moisture for winter crops.

SOUTH AFRICA: Showers brought some relief to the corn belt, although long-term drought remained a concern.

EASTERN ASIA: Cold, dry weather dominated winter crop areas of central and southern China, with little if any impact on dormant grains and oilseeds.

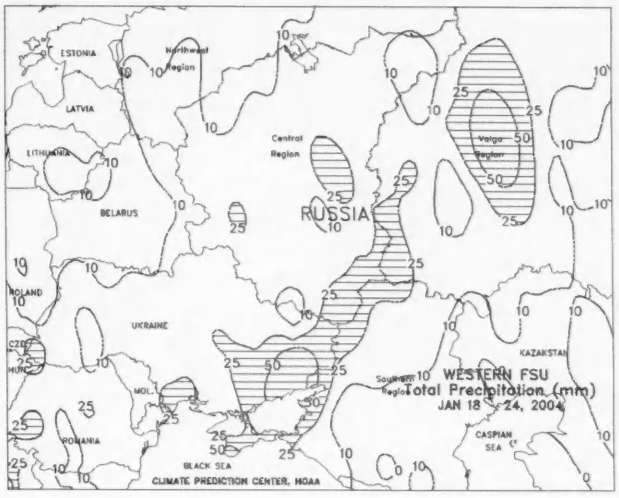
SOUTHEAST ASIA: Showers increased moisture supplies for rice and corn in Indonesia.

AUSTRALIA: Drier weather returned to eastern Australia, but cotton, sorghum, and other summer crops continued to benefit from the previous week's soaking rains.

SOUTH AMERICA: Unseasonable dryness continued across Argentina and southern Brazil for much of the week, limiting moisture for summer grains and oilseeds.

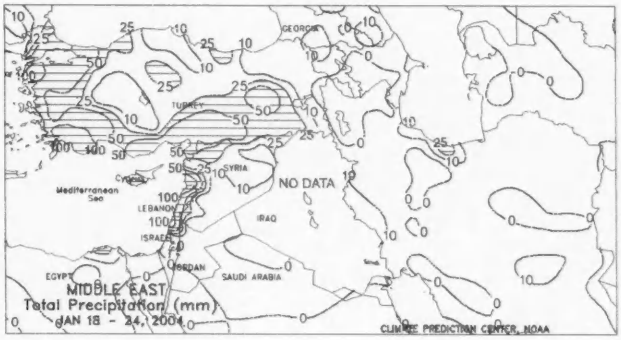
EUROPE

An active weather pattern brought widespread precipitation to most of Europe, except in the Iberian Peninsula, where dry weather prevailed. Light rain fell across western Europe (5-20 mm), with the highest amounts of moisture observed across the Low Countries (15-25 mm). Germany reported mixed precipitation (10-30 mm), with widespread snow (5-15 mm of water equivalent) covering the Alps and most of eastern Europe. This precipitation boosted moisture supplies for upcoming spring growth of currently dormant winter grains. By week's end, bitterly cold weather pushed into eastern Europe from the northeast. A widespread snow cover protected dormant winter grains from potential winterkill. Lowest temperatures of –23 to –16 degrees C were observed in Poland, the Czech Republic, and Slovakia, occurring in areas with the deepest protective snow cover. Portions of Hungary had patchy snow cover, but minimum temperatures of –11 to –9 degrees C did not approach the threshold of potential winterkill. A low-pressure system brought heavy rain (25-50 mm or more) to Italy and coastal areas of the Balkans, and produced abundant snowfall in higher elevations and across the interior Balkans (Serbia, Romania, and Bulgaria). Across the southern half of the Iberian Peninsula, continued dry weather has reduced soil moisture for vegetative winter grains and rain is needed to maintain favorable crop conditions. Temperatures averaged 1 to 3 degrees C above normal across western Europe and 1 to 4 degrees C below normal across central and eastern Europe.



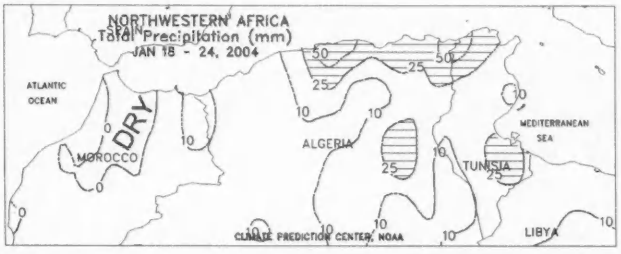
FSU-WESTERN

Occasional light to moderate snow (3-25 mm or more of liquid equivalent) continued to fall over winter grain areas that stretched from the Baltics and Belarus eastward across northern Russia, maintaining a moderate to deep snow cover. Farther south, a powerful winter storm produced moderate to heavy snow (10-30 mm of liquid equivalent) and blizzard conditions across winter wheat areas in Moldova and south-central Ukraine, providing a fresh protective snow cover. A mixture of rain and snow (10-50 mm or more) fell farther east in extreme eastern Ukraine and western portions of the Southern Region in Russia. As a result, snow cover was thin or nonexistent in these areas. Weekly temperatures averaged 2 to 6 degrees C below normal in western Ukraine, Belarus, the Baltics, and the Northwest Region in Russia. Above-normal temperatures prevailed in eastern Ukraine and the Southern and Volga Regions in Russia. Bitterly cold weather (-19 degrees C or lower) was confined to winter grain areas in the Baltics, eastern Belarus, and northernmost winter grain areas in Russia. The warmest weather was observed in the Southern Region in Russia, where maximum temperatures were at or above 10 degrees C, keeping winter wheat areas snow free. Temperatures continued to fluctuate around freezing in southeastern Ukraine, creating the potential for some ice crusting.



MIDDLE EAST

A mid-week storm brought widespread precipitation to the region and was followed by colder weather at week's end. Across the major wheat areas of central Turkey, widespread precipitation (10-35 mm, rain then light snow) maintained adequate moisture supplies for upcoming spring growth of currently dormant winter grains. In this region, late-week snow preceded the colder weather, providing a protective snow cover. By week's end, minimum temperatures ranged from -15 to -10 degrees C, remaining just above the threshold for potential winterkill. Elsewhere in Turkey, widespread moderate to heavy rain (25-75 mm) covered western and southern portions of the country, boosting moisture supplies, especially in the Tigris/Euphrates watershed in eastern Turkey. In the coastal eastern Mediterranean, widespread rain, with snow in the higher elevations (25-100 mm or more), continued to provide abundant moisture for winter crops. Based on reports from surrounding countries, light precipitation probably fell across the rainfed wheat areas of northern Iraq. In western Iran, light rain (less than 10 mm) slightly increased soil moisture for rainfed winter grains. However, continued unseasonably warm weather (temperatures averaging 5 - 8 degrees C above normal) has reduced winter hardiness of winter grains. Maximum temperatures reached 10 to 14 degrees C during the week. Elsewhere across the Middle East, temperatures averaged near normal.

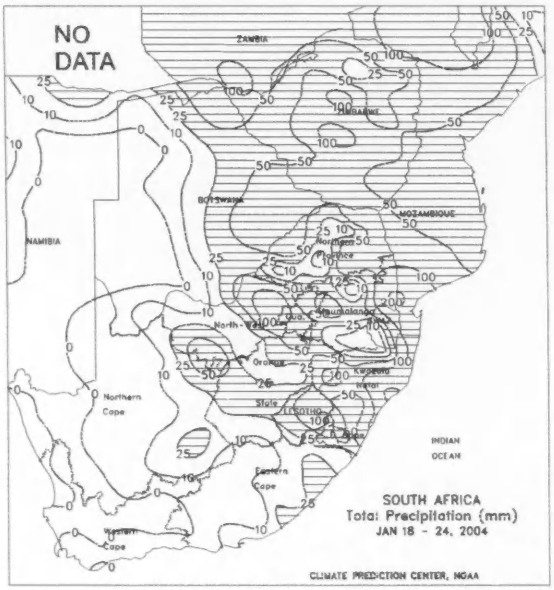


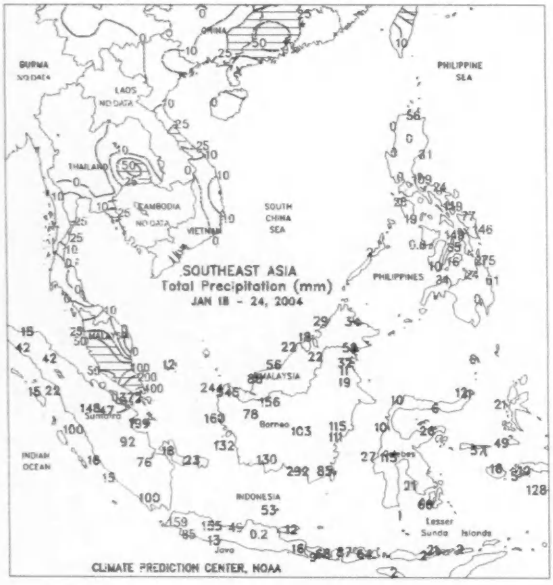
NORTHWESTERN AFRICA

Widespread rain (15-50 mm or more) fell from central Algeria to Tunisia, maintaining adequate to abundant soil moisture for vegetative winter grains. Lighter amounts (2-10 mm) of precipitation fell across western Algeria. In Morocco, persistent dryness since late December (3-4 weeks) has limited soil moisture for vegetative winter grains. Although soil moisture is adequate for winter grain development, more rain will be needed in upcoming weeks, as temperatures increase and crops enter a more active period of growth. Crops typically advance through the reproductive phase of development from mid-March to mid-April, the time in the crop growth cycle when crop-water requirements reach its peak. Temperatures averaged near to slightly below normal, reducing crop water use.

SOUTH AFRICA

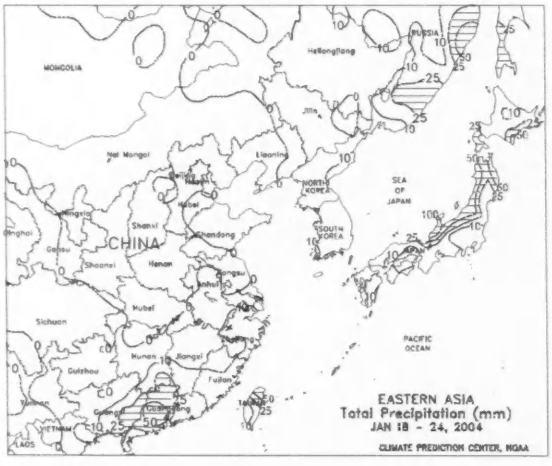
Beneficial, soaking rain (10-50 mm, locally exceeding 100 mm) swept across the corn belt, boosting topsoil moisture for early summer crop development, including germination of late planted crops. Cooler weather (1-3 degrees C or more below normal; highs generally in the middle to upper 20s degrees C) accompanied the rain, lowering crop moisture demands and helping to alleviate stress. Locally severe long-term moisture deficits remain however, and additional, frequent rain will be needed in upcoming weeks throughout the corn belt as crops advance through reproduction. Elsewhere, highly beneficial rain (25-100 mm or more) also covered sugarcane areas in and around KwaZulu-Natal, with lighter amounts in eastern growing areas of Eastern Cape. Drier weather dominated summer vegetable and fruit areas elsewhere in the south, with above-normal temperatures (highs in the middle to upper 30s degrees C) maintaining high irrigation demands.





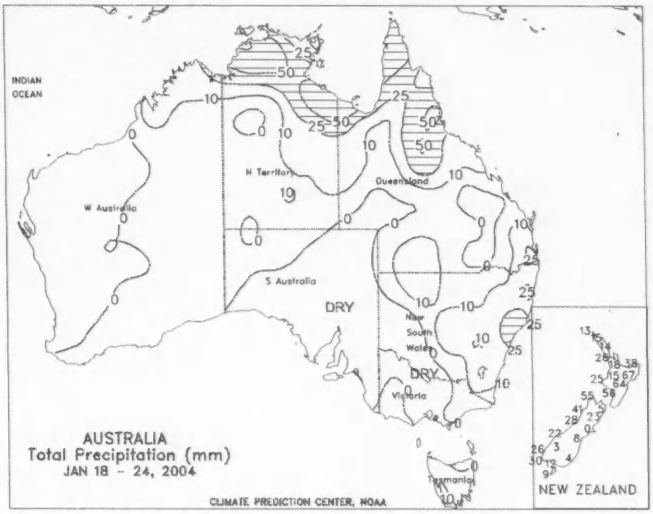
SOUTHEAST ASIA

Heavy showers (50-150 mm) continued throughout Java, Indonesia, boosting moisture supplies for corn and rice, with summer warmth (highs in the 30s degrees C) spurring crop development throughout the region. Seasonably dry weather dominated most of Indochina, although scattered showers (10-25 mm or more) were recorded from southeastern Thailand to central Vietnam. Below-normal temperatures accompanying the unseasonable showers slowed growth of dry-season rice in the wettest locations. In the Philippines, seasonal showers (25-100 mm or more) continued in the eastern Visayan Islands, but seasonable warmth and dryness prevailed elsewhere.



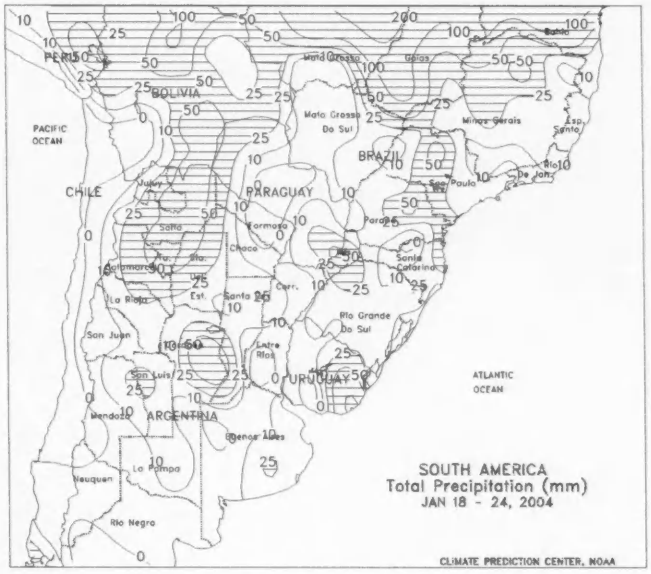
EASTERN ASIA

An arctic air mass brought the coldest weather of the season to central and southern China, ending nearly 4 weeks of unseasonably mild weather. Temperatures averaged 1 to 4 degrees C below normal over most major winter crop areas, with lows of -15 degrees C recorded in parts of the North China Plain. Patchy snow cover offered some protection from the bitter cold, but shallow rooting on some of the more northerly crops may have increased the potential for winterkill. Temperatures fell below 0 degrees C as far south as Guangdong, but temperatures stayed above freezing in sugarcane areas closest to the coast. Scattered showers (10-25 mm or more) prior to the cold boosted local moisture reserves for sugarcane and winter rapeseed. Rain and snow showers (5-25 mm or more) continued across Japan.



AUSTRALIA

Much drier weather overspread Queensland and northern New South Wales (less than 5 mm most areas, isolated amounts near 30 mm closer to the coast), following last week's soaking rains and local flooding. Although flood waters have receded, topsoil moisture likely remained adequate to locally excessive throughout most of the region, slowing or delaying fieldwork. Nevertheless, the rainfall was very beneficial for cotton, sorghum, and other summer crops, providing timely moisture for vegetative to reproductive crops by improving drought-reduced topsoil moisture for dryland crops and increasing reservoir levels for irrigated crops. In central New South Wales, showers may have caused additional delays in fieldwork, but the bulk of the summer crops are grown farther north and most of the winter grains have already been harvested. Elsewhere in New South Wales, Victoria, South Australia, and Western Australia, mostly dry weather (very isolated amounts of 5-15 mm) prevailed, favoring late winter wheat harvesting. Temperatures throughout major winter grain producing areas in Australia were generally seasonable, promoting normal crop development in areas where moisture supplies were adequate.



SOUTH AMERICA

In Argentina, unseasonably warm (highs in the middle to upper 30s degrees C), dry weather dominated most major summer crop areas, reducing moisture for vegetative to filling grains and oil seeds. Late in the week, showers (10-25 mm, locally exceeding 50 mm) brought some relief to crops in Cordoba and neighboring sections of Santa Fe, but the drying trend continued in western Buenos Aires and much of La Pampa. Many western growing areas, notably Cordoba and La Pampa, are still suffering the effects of long-term drought, and need additional moisture in upcoming weeks as crops advance through reproduction. In Brazil, drier-than-normal weather lingered in southern growing areas (Rio Grande do Sul northward to Sao Paulo and Mato Grosso do Sul), although scattered showers (10-25 mm or more) brought some relief at week's end. The combination of the general dryness and summer warmth (highs in the low to middle 30s degrees C) increased the moisture demands of soybeans, coffee, and citrus that have experienced recent decline in moisture reserves. Widespread showers (25-100 mm or more) continued from Mato Grosso eastward to Goias and Minas Gerais, maintaining mostly favorable conditions for soybeans and other crops.

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